

WHAT IS CLAIMED IS:

1. A database processing method, comprising:

partitioning a database table into N dimensions (where  
N > 1) by combining a key range partitioning or a hash  
5 partitioning;

storing thus partitioned definition information into a  
dictionary on the same layer; and

performing the insertion of data into the database and  
the database search by using said dictionary.

10 2. A database processing method, comprising:

key range partitioning of a database table into N  
dimensions (where N > 1) by using a plurality of partitioning  
keys;

storing thus partitioned definition information into the  
15 same dictionary on a Database Management System; and

storing data to be inserted into the database in a storage  
area uniquely determined by said partitioning key value of the  
inserted data.

3. A database processing method, comprising:

20 analyzing step for receiving and analyzing a database  
definition information including a plurality of partitioning  
keys and partitioning boundary values for each of respective  
partitioning keys; and

registering step for registering the analyzed database  
25 definition information into one dictionary.

4. A database processing method, according to claim 3, further comprising:

data insertion step for receiving and analyzing an SQL indicative of insertion of data into the database for storing  
5 the data to be inserted into the storage area uniquely determined from a plurality of partitioning key values of the data to be inserted and the partitioning definition of table obtained from said database definition information.

10 5. A database processing method, according to claim 3, further comprising:

said registration step including registering the partitioning boundary value for each of respective partitioning keys, the partitioning range number given for the partitioned range by the partitioning boundary value, and the storage area  
15 order number of the storage area of data constituted of partitioning the table, and

data insertion step for determining said partitioning range number for each of respective partitioning keys from the partitioning key value and said partitioning boundary value of  
20 the insertion data to determine a plurality of said storage area numbers as candidates, and then to insert the data to be inserted to the area of said storage area order number picked up as common candidate with respect to each partitioning key.

25 6. a database processing apparatus, comprising:  
a command analyzer for receiving and analyzing database

definition information that includes a plurality of partitioning keys for partitioning a table having the database and partitioning boundary value for each of partitioning keys;

5 a dictionary for storing the definition information that defines a database;

a dictionary manager for storing into said dictionary the information including the partitioning definition information of table from said analyzed database definition information.

10 7. A database processing apparatus, according to claim 6, further comprising:

said command analyzer for receiving and analyzing an SQL indicative of data insertion to the database;

15 a storage area specification component for receiving the partitioning key value of data to be inserted, for receiving the partitioning definition information of said table from said dictionary through said dictionary manager, and for determining a storage area uniquely determined on the basis of a plurality of partitioning keys of the insertion data and said partitioning definition information.

20 8. A computer readable recording medium that stores a database processing program, said program comprising:

partitioning a table constituting a database into N dimensions (where  $N > 1$ ) by combining a key range partitioning or a hash partitioning;

25 storing thus partitioned definition information into a

dictionary on the same layer;

performing the insertion of data into the database as well as database search by using said dictionary.

9. A computer readable recording medium that stores a  
5 database processing program executable on a computer, said program comprising:

an analyzing step for receiving and analyzing database definition information including a plurality of partitioning keys and the partitioning boundary value for each of respective  
10 partitioning keys; and

a registration step for registering thus analyzed database definition information into one dictionary.

10. A computer readable recording medium that stores a program implementing a database processing method, said method  
15 comprising:

key range partitioning a table constituting the database on the basis of a plurality of partitioning keys into N dimensions (where  $N > 1$ );

storing thus partitioned definition information into a  
20 dictionary on the same Database Management System; and

storing the data to be inserted into the database in a storage area uniquely determined by the values of said plurality of partitioning keys of that insertion data.

11. A program for implementing a database processing  
25 method, comprising:

partitioning a table constituting a database into N dimensions (where  $N > 1$ ) by combining a key range partitioning or a hash partitioning;

storing thus partitioned definition information into a  
5 dictionary on the same layer; and

performing data insertion into the database and database search by using said dictionary.

12. A program for implementing a database processing method, comprising:

10 key range partitioning a table constituting a database into N dimensions (where  $N > 1$ ) on the basis of a plurality of partitioning keys;

storing thus partitioned definition information in a dictionary of the same Database Management System; and

15 storing the data to be inserted into the database in a storage area uniquely determined by the value of said plurality of partitioning keys of that insertion data.

13. A program for implementing a database processing method, said method comprising:

20 an analyzing step for receiving and analyzing a database definition information including a plurality of partitioning keys and partitioning boundary values for each of respective partitioning keys;

a registering step for registering thus analyzed database  
25 definition information into one dictionary.